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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,272	08/03/2001	E. Wendell Diller	D55.2-10027	2496

490 7590 09/30/2002

VIDAS, ARRETT & STEINKRAUS, P.A.  
6109 BLUE CIRCLE DRIVE  
SUITE 2000  
MINNETONKA, MN 55343-9185

EXAMINER

THOMSON, MICHELLE R

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 09/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/923,272

Applicant(s)

DILLER, E. WENDELL

Examiner

Michelle (Shelley) Thomson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 4, 7, 10, 13, 16 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6, 8, 9, 11, 12, 14, 15 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 4, 7, 10, 13, 16 and 18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 3. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### *Claim Objections*

2. Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Since Claim 11, which depends from Claim 1, claims the vents having a size less than ½ inch in diameter, this fails to further limit the subject matter since claim 1 already claims the vents having a size less than ½ inch diameter.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, 6, 8, 9, 11, 12, 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweetman (US Patent # 2,742,821) and Smith (Small Arms & Cannons, 1982). Sweetman discloses a vented gun bore for a firearm comprising and elongate barrel

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having a breach end and a muzzle end and a plurality of vents disposed through the barrel. The barrel is formed of sections (column 2, lines 60-70), which are fixedly secured to each other and the vents are grouped into at least one sector (Figures). Sweetman further discloses that the number and size of the vents will vary depending upon calibers of the barrel, arrived at as a result of tests. Although Sweetman does not explicitly disclose the vents having a size less than  $\frac{1}{2}$  inch diameter, the vents being of the same size, irregularly spaced or initiating beyond twelve inches from the breach end of the barrel, it would have been obvious to one of ordinary skill in the art at the time the invention was made to size the vents at less than  $\frac{1}{2}$  inch diameter, have the vents the same size and space them irregularly and initiating beyond twelve inches from the breach end, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Although Sweetman does not explicitly disclose the barrel length being between three and twelve feet, approximately seven feet, Smith teaches that it is well known in the art that the longer the barrel the greater the velocity and accuracy, but any increase in barrel length after a point only gives a small increase in muzzle velocity and barrel length is generally governed by balancing these factors. Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the barrel length seven feet, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ryan (Guns, Mortars & Rockets, 1982), Widder et al. (US Patent # 6,065,384), Abbot

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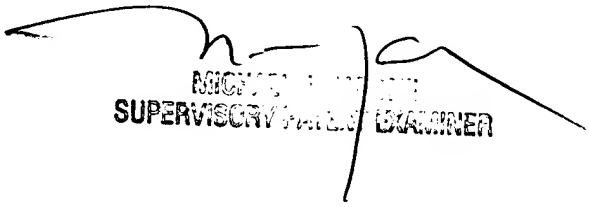
(US Patent # 1,380,171), Titus (US Patent # 4,722,261), Renner (US Patent # 5,844,162), Clouse (US Patent # 5,587,549), Schwinkendorf et al. (US Patent # 6,223,458), Mutter (US Patent # 2,916,970 & # 2,842,024), A'Costa (US Patent # 4,546,564), Jones (US Patent # 1,605,741), Rogers (US Patent # 5,355,765), Medearis (US Patent # 1,628,896), Vang et al. (US Patent # 5,272,827), Peterson (US Patent # 618,901) and Crandall (US Patent # 2,512,850).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Thomson whose telephone number is 703.306.4176. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703.306.4198. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

mrt  
September 24, 2002

  
MICHELLE THOMSON  
SUPERVISORY PATENT EXAMINER